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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,146	03/16/2004	Woo-Young So	61610025C1	2192

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H.C. PARK & ASSOCIATES, PLC
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VIENNA, VA 22182

EXAMINER

WHANG, VICTORIA P

ART UNIT	PAPER NUMBER
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2809

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/801,146

Applicant(s)

SO, WOO-YOUNG

Examiner

Victoria P. Whang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/16/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



LYNNE GURLEY

SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/16/04 and 1/11/07.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

This action is in response to the pre-amendment filed 03/16/2004 and the IDS filed 03/16/04 and 01/11/07.

Currently, claims 18-19 are pending.

Oath/Declaration

Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in the Republic of Korea on 04/04/2001. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date. In regards to the oath/declaration filed, it is noted that applicant did not check the yes under priority claimed. It is recommended that applicant clearly claim priority by checking the yes statement in the oath/declaration.

Priority

Applicant is reminded that in order for a patent issuing on the instant application to obtain the benefit of priority based on priority papers filed in parent Application No. 10/114,463 under 35 U.S.C. 119(a)-(d) or (f), a claim for such foreign priority must be timely made in this application. To satisfy the requirement of 37 CFR 1.55(a)(2) for a certified copy of the foreign application, applicant may simply identify the application containing the certified copy.

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Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/114,163, filed on 04/03/2002.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 9, line 19, the reference number 30b is mentioned in the specification, but is not shown in either drawing 2I and 3I. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

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notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The abstract of the disclosure is objected to because in line 2 of the abstract, it is suggested that applicant remove and rephrase the word "comprising" since it is legal phraseology often used in patent claims. Also, the abstract currently has 250 words. It is suggested that applicant shorten the abstract to between 50-150 words. Correction is required. See MPEP § 608.01(b).

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 18 and 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 7, 8 and 12 of U.S.

Patent No. 6,706,573 (dated 3/16/2004) in view of Lee et al. (US

PGPub2001/0005596, dated 6/28/2001, filed 12/13/2000).

5. With respect to claim 18, claim 1 of US Patent No. 6,706,573 shows substantially all of the limitations of a method for manufacturing a thin film transistor, comprising: forming an amorphous silicon layer and a blocking layer on an insulating substrate; forming a photoresist layer having first and second photoresist patterns on the blocking layer, the first and second photoresist

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patterns spaced apart from each other; etching the blocking layer using the first photoresist pattern as a mask to form first and second blocking patterns; reflowing the photoresist layer, so that the first and second photoresist patterns abut each other to entirely cover the first and second blocking patterns; forming a metal layer over an entire first surface of the insulating substrate; removing the photoresist layer to expose the blocking layer and an offset region between the blocking layer and the metal layer; crystallizing the amorphous silicon layer to form a poly silicon layer with a metal induced lateral crystallization front; etching the poly silicon layer using the first and second blocking patterns as a mask to form first and second semiconductor layers and to remove the metal induced lateral crystallization front; and removing the first and second blocking pattern. Claim 7 shows formation of source and drain electrodes.

Claims 1 and 7 of US Patent No. 6,706,573 fail to explicitly show forming a metal layer for a source electrode and a drain electrode.

Lee teaches that, conventionally, forming a metal layer for a source and drain electrode is used in manufacturing thin film transistors (parag. [0006] lines 1-3, parag. [0009] lines 1-3, fig. 1c, (6a,6b)).

US Patent No. 6,706,573 and Lee are analogous art because they are from the same field of manufacturing thin film transistors.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use Lee's method of forming a metal layer for a source and drain electrode in the method claims 1 and 7 of US Patent No. 6,706,573. The motivation to use Lee's method of forming a metal layer for a

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source and drain electrode in claims 1 and 7 of US Patent No. 6,706,573 would have been that Lee's method is conventionally practiced in the art (Lee, parag. [0006] lines 1-3). Therefore it would have been obvious to combine claims 1 and 7 of US Patent No. 6,706,573 with Lee to obtain the method as specified in claim 18 with a reasonable expectation of success.

6. With respect to claim 19, claim 8 of US Patent No. 6,706,573 discloses all of the limitations of a method for manufacturing a thin film transistor, comprising: forming an amorphous silicon layer on an insulating substrate; forming a first photoresist layer on the amorphous silicon layer while exposing edge portions of the amorphous silicon layer; forming a metal layer over an entire first surface of the insulating substrate; removing the first photoresist layer to expose a portion of the amorphous silicon layer under the first photoresist layer; crystallizing the amorphous silicon layer to form a poly silicon layer with a metal induced lateral crystallization from; forming a second photoresist layer having first and second photoresist patterns on the metal induced lateral crystallization front of the poly silicon layer to expose the metal induced lateral crystallization front, the first and second photoresist pattern spaced apart from each other; etching the poly silicon layer using the first and second photoresist patterns as a mask to form first and second semiconductor layers and to remove the metal induced lateral crystallization front; and removing the first and second photoresist patterns.

Claim 12 shows formation of source and drain electrodes.

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Claims 8 and 12 of US Patent No. 6,706,573 fail to explicitly disclose forming a metal layer for a source electrode and a drain electrode.

Lee teaches that, conventionally, forming a metal layer for a source and drain electrode is used in manufacturing thin film transistors (parag. [0006] lines 1-3, parag. [0009] lines 1-3, fig. 1c, (6a,6b)).

US Patent No. 6,706,573 and Lee are analogous art because they are from the same field of manufacturing thin film transistors.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use Lee's method of forming a metal layer for a source and drain electrode in the method claims 8 and 12 of US Patent No. 6,706,573. The motivation to use Lee's method of forming a metal layer for a source and drain electrode in claims 8 and 12 of US Patent No. 6,706,573 would have been that Lee's method is conventionally practiced in the art (Lee, parag. [0006] lines 1-3). Therefore it would have been obvious to combine US Patent No. 6,706,573 with Lee to obtain the method as specified in claim 19 with a reasonable expectation of success.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victoria P. Whang whose telephone number is (571) 270-1564. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM E.S.T.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Gurley can be reached on (571) 272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

V.P.W
January 31, 2007


LYNNE GURLEY
SUPERVISORY PATENT EXAMINER